



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
834093
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (29 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0122823	GFL0122800	GFL0118832
Sample Date		Client Info		14 Jun 2024	23 May 2024	17 May 2024
Machine Age	hrs	Client Info		1083	9180	890
Oil Age	hrs	Client Info		9180	9180	890
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>50	76	63	42
Chromium	ppm	ASTM D5185m	>4	4	3	2
Nickel	ppm	ASTM D5185m	>2	3	2	1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	49	43	26
Lead	ppm	ASTM D5185m	>30	4	4	2
Copper	ppm	ASTM D5185m	>35	18	16	11
Tin	ppm	ASTM D5185m	>4	2	2	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

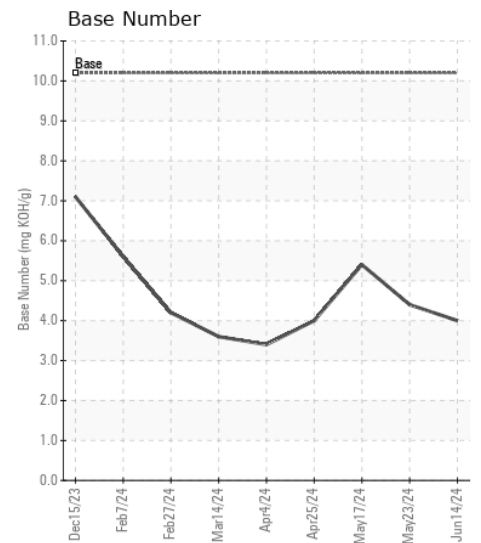
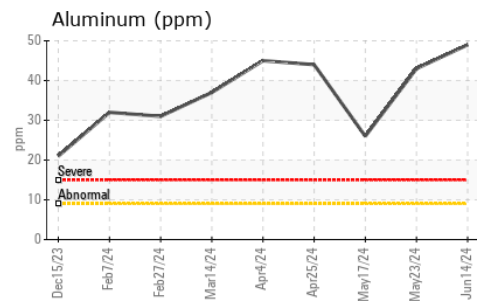
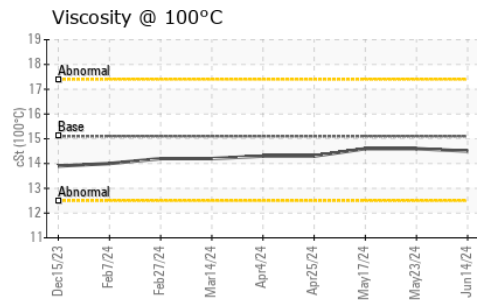
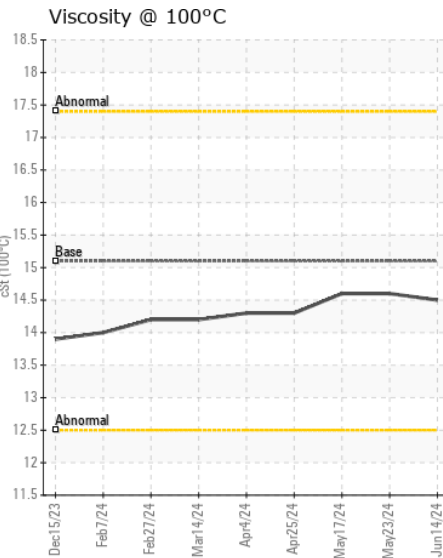
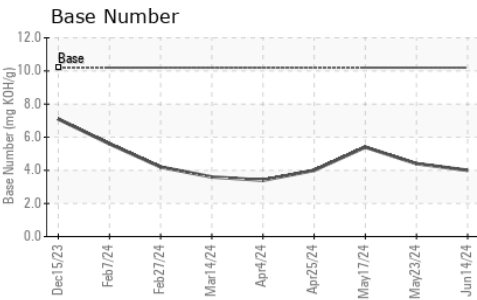
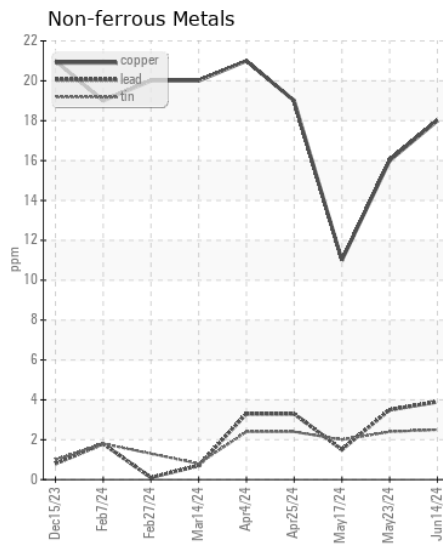
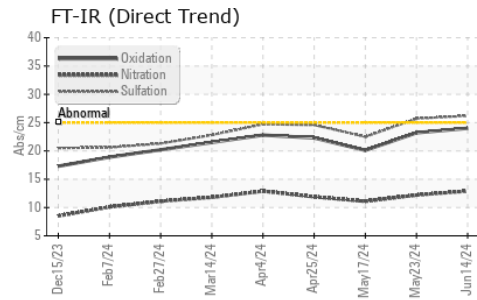
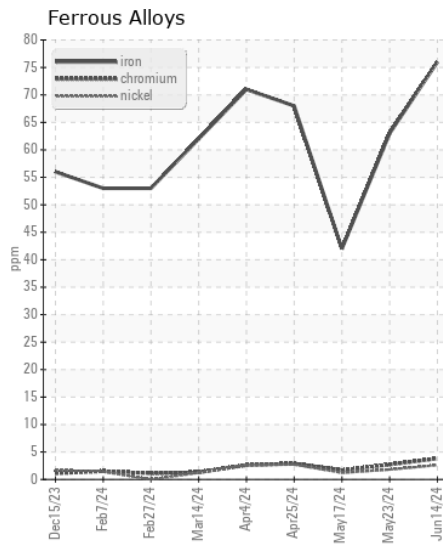
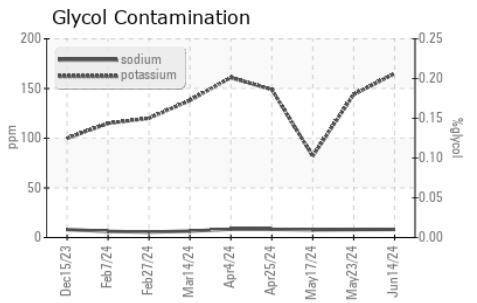
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>+100	26	23	17
Potassium	ppm	ASTM D5185m	>20	165	144	82
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	12.9	12.2	11.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.2	25.7	22.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		8	8	8
Boron	ppm	ASTM D5185m	50	10	13	18
Barium	ppm	ASTM D5185m	5	3	3	<1
Molybdenum	ppm	ASTM D5185m	50	65	55	58
Manganese	ppm	ASTM D5185m	0	15	13	9
Magnesium	ppm	ASTM D5185m	560	903	746	745
Calcium	ppm	ASTM D5185m	1510	1543	1288	1503
Phosphorus	ppm	ASTM D5185m	780	845	772	832
Zinc	ppm	ASTM D5185m	870	1092	929	1001
Sulfur	ppm	ASTM D5185m	2040	2805	2498	2816
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.0	23.2	20.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	4.0	4.4	5.4
Visc @ 100°C	cSt	ASTM D445	15.1	14.5	14.6	14.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0122823
Lab Number : 06220499
Unique Number : 11098696
Test Package : FLEET

Received : 25 Jun 2024
Tested : 26 Jun 2024
Diagnosed : 27 Jun 2024 - Don Baldrige

GFL Environmental - 836 - Kansas City Hauling
 7801 East Truman Road
 Kansas City, MO
 US 64126
 Contact: Christopher Gilkey
 cgilkey@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)